Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Adult depression in primary care: percentage of patients who had a stroke with documentation of screening for major depression or persistent depressive disorder using either PHQ-2 or PHQ-9.

Source(s)

Trangle M, Gursky J, Haight R, Hardwig J, Hinnenkamp T, Kessler D, Mack N, Myszkowski M. Adult depression in primary care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2016 Mar. 131 p. [394 references]

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients age 18 years and older who had a stroke with documentation of screening for major depression or persistent depressive disorder using either Patient Health Questionnaire-2 (PHQ-2) or PHQ-9.

Rationale

The priority aim addressed by this measure is to increase the assessment for major depression or persistent depressive disorder of primary care patients presenting with additional high-risk conditions such as diabetes, cardiovascular disease, post-stroke, chronic pain and all perinatal women.

At any given time, 9% of the population has a depressive disorder, and 3.4% has major depression (Strine et al., 2008). In a 12-month time period, 6.6% of the U.S. population will have experienced major depression, and 16.6% of the population will experience depression in their lifetime (Kessler et al.,

2005).

Major depression is a treatable cause of pain, suffering, disability and death, yet primary care clinicians detect major depression in only one-third to one-half of their patients with major depression (Williams et al., 2002; Schonfeld et al., 1997). Additionally, more than 80% of patients with depression have a medical comorbidity (Klinkman, 2003). Usual care for depression in the primary care setting has resulted in only about half of depressed adults getting treated (Kessler et al., 2005) and only 20% to 40% showing substantial improvement over 12 months (Unützer et al., 2002; Katon et al., 1999). Approximately 70% to 80% of antidepressants are prescribed in primary care, making it critical that clinicians know how to use them and have a system that supports best practices (Mojtabai & Olfson, 2008).

The importance of the interplay between depression and many medical comorbidities cannot be overstated. A long list of medical conditions has been associated with increased risk for depression; these include chronic pain, diabetes, cancer, HIV, Parkinson's disease, cardiovascular and cerebrovascular disease, and multiple sclerosis (Kozhimannil, Pereira, & Harlow, 2009; Egede, 2005; Katon et al., 2004).

A meta-analysis in regards to the relationship between stroke and depression found a pooled hazard ratio of 1.45, on par with the association smoking and obesity have with stroke (Pan et al., 2011).

Either the Patient Health Questionnaire-2 (PHQ-2) or the PHQ-9 can be used to screen for depression. There is stronger evidence supporting the use of the PHQ-9 in patients with chronic disease. The PHQ two-question tool (PHQ-2) should be used in routine screening settings (Gilbody et al., 2006). If the patient answers "yes" to either of the two questions, the full PHQ-9 depression instrument should be administered (Kroenke et al., 2010).

Evidence for Rationale

Egede LE. Effect of comorbid chronic diseases on prevalence and odds of depression in adults with diabetes. Psychosom Med. 2005 Jan-Feb;67(1):46-51. PubMed

Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ. Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. Arch Intern Med. 2006 Nov 27;166(21):2314-21. [72 references] PubMed

Katon W, Von Korff M, Lin E, Simon G, Walker E, Unutzer J, Bush T, Russo J, Ludman E. Stepped collaborative care for primary care patients with persistent symptoms of depression: a randomized trial. Arch Gen Psychiatry. 1999 Dec;56(12):1109-15. PubMed

Katon WJ, Lin EH, Russo J, Von Korff M, Ciechanowski P, Simon G, Ludman E, Bush T, Young B. Cardiac risk factors in patients with diabetes mellitus and major depression. J Gen Intern Med. 2004 Dec;19(12):1192-9. PubMed

Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005 Jun;62(6):617-27. PubMed

Klinkman MS. The role of algorithms in the detection and treatment of depression in primary care. J Clin Psychiatry. 2003;64 Suppl 2:19-23. [24 references] PubMed

Kozhimannil KB, Pereira MA, Harlow BL. Association between diabetes and perinatal depression among low-income mothers. JAMA. 2009 Feb 25;301(8):842-7. PubMed

Kroenke K, Spitzer RL, Williams JB, Lowe B. The Patient Health Questionnaire Somatic, Anxiety, and

Depressive Symptom Scales: a systematic review. Gen Hosp Psychiatry. 2010 Jul-Aug;32(4):345-59. PubMed

Mojtabai R, Olfson M. National patterns in antidepressant treatment by psychiatrists and general medical providers: results from the national comorbidity survey replication. J Clin Psychiatry. 2008 Jul;69(7):1064-74. PubMed

Pan A, Sun Q, Okereke OI, Rexrode KM, Hu FB. Depression and risk of stroke morbidity and mortality: a meta-analysis and systematic review. JAMA. 2011 Sep 21;306(11):1241-9. PubMed

Schonfeld WH, Verboncoeur CJ, Fifer SK, Lipschutz RC, Lubeck DP, Buesching DP. The functioning and well-being of patients with unrecognized anxiety disorders and major depressive disorder. J Affect Disord. 1997 Apr;43(2):105-19. PubMed

Strine TW, Mokdad AH, Balluz LS, Gonzalez O, Crider R, Berry JT, Kroenke K. Depression and anxiety in the United States: findings from the 2006 Behavioral Risk Factor Surveillance System. Psychiatr Serv. 2008 Dec;59(12):1383-90. PubMed

Trangle M, Gursky J, Haight R, Hardwig J, Hinnenkamp T, Kessler D, Mack N, Myszkowski M. Adult depression in primary care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2016 Mar. 131 p. [394 references]

UnÃ¼tzer J, Katon W, Callahan CM, Williams JW Jr, Hunkeler E, Harpole L, Hoffing M, Della Penna RD, Noel PH, Lin EH, Arean PA, Hegel MT, Tang L, Belin TR, Oishi S, Langston C. Collaborative care management of late-life depression in the primary care setting: a randomized controlled trial. JAMA. 2002 Dec 11;288(22):2836-45. PubMed

Williams JW Jr, Noel PH, Cordes JA, Ramirez G, Pignone M. Is this patient clinically depressed. JAMA. 2002 Mar 6;287(9):1160-70. PubMed

Primary Health Components

Major depression; persistent depressive disorder; stroke; screening; Patient Health Questionnaire-2 (PHQ-2); PHQ-9

Denominator Description

Number of patients age 18 years and older who had a stroke and at least one contact with a clinician in primary care in the last 12 months from the measurement date (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of patients screened for depression symptoms with Patient Health Questionnaire-2 (PHQ-2) or PHQ-9 (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

Additional Information Supporting Need for the Measure

- Major depression was second only to back and neck pain for having the greatest effect on disability days, at 386.6 million United States (U.S.) days per year (Merikangas et al., 2007).
- In a World Health Organization (WHO) study of more than 240,000 people across 60 countries, depression was shown to produce the greatest decrease in quality of health compared to several other chronic diseases. Health scores worsened when depression was a comorbid condition, and the most disabling combination was depression and diabetes (Moussavi et al., 2007).
- A 2011 study showed a relationship between the severity of depression symptoms and work function. Data was analyzed from 771 depressed patients who were currently employed. The data showed that for every 1-point increase in Patient Health Questionnaire-9 (PHQ-9) score, patients experienced an additional mean productivity loss of 1.65%. And, even minor levels of depression symptoms were associated with decrements in work function (Beck et al., 2011).
- In the U.S., depression costs employers $24 billion in lost productive work time (Stewart et al., 2003).
- There is evidence that non-majority racial and cultural groups in the U.S. are less likely to be treated for depression than European Americans. In an epidemiological study that compared rates of diagnosing and treating depression in the early 1990s to patterns 10 years later, only 4.9% of minorities were treated with antidepressants compared to 12.4% of non-Hispanic Caucasians (Mojtabai & Olfson, 2008).
- Depression in the elderly is widespread, often undiagnosed and usually untreated. It is a common misperception that it is a part of normal aging. Losses, social isolation and chronic medical problems that older patients experience can contribute to depression.
- The rate of depression in adults older than 65 years of age treated in primary care settings ranges from 17% to 37% (Birrer & Vemuri, 2004) and is between 14% and 42% in patients who live in long-term care facilities (Robinson et al., 2014). Comorbidities are more common in the elderly. The highest rates of depression are found in those with strokes (30% to 60%), coronary artery disease (up to 44%), cancer (up to 40%), Parkinson's disease (40%), Alzheimer's disease (20% to 40%), and dementia (17% to 31%) (Birrer & Vemuri, 2004). The recurrence rate is also extremely high at 40% (Birrer & Vemuri, 2004).
- Between 14% and 23% of pregnant women and 10% to 15% of postpartum women will experience a depressive disorder (Gaynes et al., 2005). A review by Milgrom and Gemmill (2014) cites a point prevalence of 13% at three months after delivery and an average of 9% during each trimester of pregnancy. According to a large-scale epidemiological study by Vesga-López et al. (2008), depression during the postpartum period may be more common than at other times in a woman's life.
- With growing understanding of the systemic impact of perinatal stressors, there is a new body of research examining paternal depression. A recent meta-analysis shows a 10% to 14% incidence of paternal depression during the perinatal period, with a moderate positive correlation with maternal depression (Paulson & Bazemore, 2010).
- From 50% to 85% of people who suffer an episode of major depression will have a recurrence, usually within two or three years (American Psychiatric Association, 2010). Patients who have had three or more episodes of major depression are at 90% risk of having another episode.

Evidence for Additional Information Supporting Need for the Measure

American Psychiatric Association (APA). Practice guideline for the treatment of patients with panic disorder, 2nd edition. Arlington (VA): American Psychiatric Association (APA); 2010. various p.

Beck A, Crain AL, Solberg LI, Unutzer J, Glasgow RE, Maciosek MV, Whitebird R. Severity of depression and magnitude of productivity loss. Ann Fam Med. 2011 Jul-Aug;9(4):305-11. PubMed

Birrer RB, Vemuri SP. Depression in later life: a diagnostic and therapeutic challenge. Am Fam Physician. 2004 May 15;69(10):2375-82. [25 references] PubMed

Gaynes BN, Gavin N, Meltzer-Brody S, Lohr KN, Swinson T, Gartlehner G, Brody S, Miller WC. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005 Feb. (Evidence report/technology assessment; no. 119). [77 references]

Merikangas KR, Ames M, Cui L, Stang PE, Ustun TB, Von Korff M, Kessler RC. The impact of comorbidity of mental and physical conditions on role disability in the US adult household population. Arch Gen Psychiatry. 2007 Oct;64(10):1180-8. PubMed

Milgrom J, Gemmill AW. Screening for perinatal depression. Best Pract Res Clin Obstet Gynaecol. 2014 Jan;28(1):13-23. PubMed

Mojtabai R, Olfson M. National patterns in antidepressant treatment by psychiatrists and general medical providers: results from the national comorbidity survey replication. J Clin Psychiatry. 2008 Jul;69(7):1064-74. PubMed

Moussavi S, Chatterji S, Verdes E, Tandon A, Patel V, Ustun B. Depression, chronic diseases, and decrements in health: results from the World Health Surveys. Lancet. 2007 Sep 8;370(9590):851-8. PubMed

Paulson JF, Bazemore SD. Prenatal and postpartum depression in fathers and its association with maternal depression: a meta-analysis. JAMA. 2010 May 19;303(19):1961-9. PubMed

Robinson M, Oakes TM, Raskin J, Liu P, Shoemaker S, Nelson JC. Acute and long-term treatment of late-life major depressive disorder: duloxetine versus placebo. Am J Geriatr Psychiatry. 2014 Jan;22(1):34-45. PubMed

Stewart WF, Ricci JA, Chee E, Hahn SR, Morganstein D. Cost of lost productive work time among US workers with depression. JAMA. 2003 Jun 18;289(23):3135-44. PubMed

Trangle M, Gursky J, Haight R, Hardwig J, Hinnenkamp T, Kessler D, Mack N, Myszkowski M. Adult depression in primary care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2016 Mar. 131 p. [394 references]

Vesga-LÃ³pez O, Blanco C, Keyes K, Olfson M, Grant BF, Hasin DS. Psychiatric disorders in pregnant and postpartum women in the United States. Arch Gen Psychiatry. 2008 Jul;65(7):805-15. PubMed

Extent of Measure Testing

Unspecified

National Guideline Clearinghouse Link

Adult depression in primary care.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Clinical Practice or Public Health Sites

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality

Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

The time frame pertaining to the data collection is quarterly.

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Number of patients age 18 years and older who had a stroke* and at least one contact with a clinician in primary care in the last 12 months from the measurement date

*Diagnosis may be either new or existing.

Exclusions
Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Number of patients screened for depression symptoms with Patient Health Questionnaire-2 (PHQ-2) or PHQ-9

Data Collection: Count only one screen.

Exclusions
Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Electronic health/medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

- Patient Health Questionnaire-2 (PHQ-2)
- PHQ-9

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Percentage of patients who had a stroke with documentation of screening for major depression or persistent depressive disorder using either PHQ-2 or PHQ-9.

Measure Collection Name

Adult Depression in Primary Care

Submitter

Institute for Clinical Systems Improvement - Nonprofit Organization

Developer

Institute for Clinical Systems Improvement - Nonprofit Organization

Funding Source(s)

The Institute for Clinical Systems Improvement's (ICSI's) work is funded by the annual dues of the member medical groups and three sponsoring health plans in Minnesota.

Composition of the Group that Developed the Measure

Work Group Members: Michael Trangle, MD (*Work Group Leader*) (HealthPartners Medical Group and Regions Hospital) (Psychiatry); Daniel Kessler, LP (Allina Medical Clinic) (Psychology); Jeffrey Hardwig, MD (Essentia Health) (Psychiatry); Todd Hinnenkamp, RN (Essentia Health) (Internal Medicine); Robert Haight, PharmD, BCPP (Fairview Health Services) (Pharmacy); Tom Gabert (Howard Young Medical Center) (Family Medicine); Mioki Myszkowski, MD (Mayo Clinic) (Family Medicine); Nicky Mack, RN (North Memorial Health Care) (Family Medicine); Jeffrey Gursky, MD (Olmstead Medical Center) (Psychiatry); Jodie Dvorkin (Institute for Clinical Systems Improvement [ICSI]) (Project Manager/Health Care Consultant); Senka Hadzic (ICSI) (Clinical Systems Improvement Facilitator)

Financial Disclosures/Other Potential Conflicts of Interest

The Institute for Clinical Systems Improvement (ICSI) has long had a policy of transparency in declaring potential conflicting and competing interests of all individuals who participate in the development, revision and approval of ICSI guidelines and protocols.

In 2010, the ICSI Conflict of Interest Review Committee was established by the Board of Directors to review all disclosures and make recommendations to the board when steps should be taken to mitigate potential conflicts of interest, including recommendations regarding removal of work group members. This committee has adopted the Institute of Medicine Conflict of Interest standards as outlined in the report Clinical Practice Guidelines We Can Trust (2011).

Where there are work group members with identified potential conflicts, these are disclosed and

discussed at the initial work group meeting. These members are expected to recuse themselves from related discussions or authorship of related recommendations, as directed by the Conflict of Interest committee or requested by the work group.

The complete ICSI policy regarding Conflicts of Interest is available at the ICSI Web site .

Disclosure of Potential Conflicts of Interest

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National, Regional, Local Committee Affiliations: None
Guideline Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

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Research Grants: None
Financial/Non-Financial Conflicts of Interest: Paid expert testimony for the State of Minnesota. On request case, consulting for specific patient cases involving psychiatric medications to be reviewed by various departments.

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Guideline Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

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Guideline Related Activities: None
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Research Grants: None
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Research Grants: None

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Guideline Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2016 Mar

Measure Maintenance

Scientific documents are revised as indicated by changes in clinical practice and literature. Institute for Clinical Systems Improvement (ICSI) staff monitors major peer-reviewed journals for any pertinent evidence that would affect a particular guideline and recommendation.

Date of Next Anticipated Revision

The next revision will be no later than March 2021.

Measure Status

This is the current release of the measure.

This measure updates a previous version: Mitchell J, Trangle M, Degnan B, Gabert T, Haight B, Kessler D, Mack N, Mallen E, Novak H, Rossmiller D, Setterlund L, Somers K, Valentino N, Vincent S. Adult depression in primary care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Sep. 129 p. [334 references]

Measure Availability

Source available for purchase from the Institute for Clinical Systems Improvement (ICSI) Web site . Also available to ICSI members for free at the ICSI Web site and to Minnesota health care organizations free by request at the ICSI Web site .

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NQMC Status

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Copyright Statement

Production

Source(s)

Trangle M, Gursky J, Haight R, Hardwig J, Hinnenkamp T, Kessler D, Mack N, Myszkowski M. Adult depression in primary care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2016 Mar. 131 p. [394 references]

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